### Overview

#### Useful For
- Diagnosing congenital deficiency of coagulation factor VII
- Evaluating acquired deficiencies associated with liver disease, oral anticoagulant therapy, and vitamin K deficiency
- Determining degree of anticoagulation with warfarin to correlate with level of protein C
- Investigation of a prolonged prothrombin time

#### Special Instructions
- [Coagulation Guidelines for Specimen Handling and Processing](#)

#### Method Name
- Optical Clot-Based

#### NY State Available
- Yes

### Specimen

#### Specimen Type
- Plasma Na Cit

#### Advisory Information
Coagulation testing is highly complex, often requiring the performance of multiple assays and correlation with clinical information. For that reason we suggest ordering Coagulation Consultations.

#### Necessary Information
- If priority specimen, mark request form, give reason, and request a call-back.

#### Specimen Required
- See [Coagulation Guidelines for Specimen Handling and Processing](#) in Special Instructions.

- **Specimen Type:** Platelet-poor plasma
  - **Patient Preparation:** Patient must not be receiving Coumadin or heparin therapy.
  - **Collection Container/Tube:** Light-blue top (citrate)
  - **Submission Container/Tube:** Plastic vial
  - **Specimen Volume:** 1 mL

- **Collection Instructions:**
  1. Within 4 hours of collection, centrifuge, transfer all plasma into a plastic vial, and centrifuge plasma again. Aliquot plasma into separate plastic vial leaving 0.25 mL in the bottom of centrifuged vial.
2. Freeze plasma immediately at -20 degrees C, or, ideally at < or = -40 degrees C.

Additional Information:

1. Double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results.

2. Each coagulation assay requested should have its own vial.

Forms

If not ordering electronically, complete, print, and send a Coagulation Test Request (T753) with the specimen.

Specimen Minimum Volume

0.5 mL

Reject Due To

| Gross hemolysis | Reject |
| Gross lipemia   | Reject |
| Gross icterus   | Reject |

Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
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<tbody>
<tr>
<td>Plasma Na Cit</td>
<td>Frozen</td>
<td>14 days</td>
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Clinical and Interpretive

Clinical Information

Factor VII is a vitamin K-dependent serine protease synthesized in the liver. It is a component of the extrinsic coagulation scheme, measured by the prothrombin time. Plasma biological half-life is about 3 to 6 hours. Deficiency may result in a bleeding diathesis.

Reference Values

Adults: 65-180%

Normal, full-term newborn infants or healthy premature infants may have decreased levels (> or =20%) which increase within the first postnatal week but may not reach adult levels for > or = 180 days postnatal. *

*See Pediatric Hemostasis References section in Coagulation Guidelines for Specimen Handling and Processing in Special Instructions.

Interpretation

Liver disease, vitamin K deficiency, or warfarin anticoagulation can cause decreased factor VII activity.

Heterozygotes generally have levels of < or =50%.

Homozygotes have levels usually <20%.
Newborn infants usually have levels $>=$ 25%.

**Cautions**

Factor VII is the first vitamin K-dependent coagulation factor to decrease after starting warfarin therapy and one of the first to return to normal when anticoagulation is discontinued.

**Clinical Reference**


**Performance**

**Method Description**


**PDF Report**

No

**Day(s) and Time(s) Test Performed**

Monday through Friday

**Analytic Time**

1 day

**Maximum Laboratory Time**

3 days

**Specimen Retention Time**

7 days

**Performing Laboratory Location**

Rochester

**Fees and Codes**

**Fees**

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
Test Definition: F_7
Coag Factor VII Assay, P

- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

**Test Classification**

This test has been modified from the manufacturer’s instructions. Its performance characteristics were determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

**CPT Code Information**

85230

**LOINC® Information**

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<th>Test Order Name</th>
<th>Order LOINC Value</th>
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<td>Coag Factor VII Assay, P</td>
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